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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BUTCHER, BRIAN M

ART UNIT

PAPER NUMBER

2627

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03/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,524	Applicant(s) SASAKI ET AL.	
	Examiner BRIAN BUTCHER	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8,9 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>28 April 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 9 is objected to because of the following informalities: On line 2 of claim 9, there is a recitation of dependency from "claim 1". The Examiner has treated claim 9 as being dependent upon independent claim 8. Appropriate correction is required.

Claim 10 is objected to because of the following informalities: On line 7 of claim 10, "DVD□}R/RW" requires a change to -- DVD±R/RW --. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 9, and 11—13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maruyama (United States Patent US 6,421,314 B1), hereinafter referenced as Maruyama, in view of Asada et al. (United States Patent US 7,038,989 B2), hereinafter referenced as Asada.

Regarding **claim 8**, Maruyama discloses "An information recording . . . onto a recording medium" (column 3, lines 14 - 17), "a light source . . . laser light" (column 3,

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lines 61 - 64), "a driving signal generating unit . . . or a reproduction power level" (column 3, lines 42 - 45), "a high frequency superimposing unit . . . on the laser driving signal" (column 3, lines 45 - 49), "a control unit . . . recording and reproduction" (column 3, lines 49 - 54, column 4, lines 61 - 63, and column 5, lines 44 - 45), and "wherein a level . . . at a time of reproduction" (column 5, lines 6 - 11 and column 6, lines 1 - 5 (Notice that the level of the high frequency signal is of a comparatively greater amplitude for reproduction and the signal is of a comparatively small amplitude for recording.)). However, Maruyama fails to disclose "wherein the high frequency superimposing unit . . . to a recording state.

In a similar field of endeavor, Asada discloses the changing of the amplitude of a high frequency superimposed signal at time period before a transition of laser to a recording power level (column 18, lines 20 - 27, and figure 13, items Thf1_off, Thf1_on, Thf2_on, Thf2_off).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Maruyama by specifically using the teachings in Asada to change the level of the superimposed high frequency signal at a time period before transition of the laser power level from recording to reproduction because one having ordinary skill in the art would want to prevent adverse effects of the high frequency component at the start and end of the mark forming laser drive current (Asada, column 18, lines 36 - 45).

Regarding **claim 9**, Maruyama and Asada, the combination of hereinafter referenced as MA, disclose everything claimed as applied above (see claim 8), specifically see the argument of claim 8 in regard to Maruyama's disclosure of utilizing a level of a high frequency signal that is of a comparatively greater amplitude for reproduction and a level of a high frequency signal that is of a comparatively small amplitude for recording (Also, see column 15, claim 1, lines 26 - 33).

Regarding **claim 11**, MA disclose everything claimed as applied above (see claim 8), in addition Asada discloses the utilization of a time period that allows for the high frequency signal level to reach a steady state when changed (See figure 13 (Notice that the time period of Thf1_off allow the high frequency signal to stabilize to a steady state before the transition from read power to write power at Tr(Pread to Pw).) and column 18, lines 41 - 45).

Therefore, it would have been obvious to modify the device of Maruyama by specifically using the teachings in Asada to utilize a time period that is longer than the time necessary for a high frequency signal to reach a steady state because one having ordinary skill in the art would want to further reduce the influence of the high frequency component (Asada, column 18, lines 41 - 45).

Regarding **claim 12**, MA disclose everything claimed as applied above (see claim 8), specifically notice that the combination of MA results in a device that performs the method claimed.

Regarding **claim 13**, MA disclose everything claimed as applied above (see claim 8), specifically notice that control circuit 2 disclosed in Maruyama is well known to

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be implemented by a controller such as that disclosed in Asada (column 7, lines 56 – 57) which utilizes a computer program to implement functionality.

Therefore, it would have been obvious to modify the device of Maruyama by specifically using the teachings in Asada to include a DSP controller utilizing a computer program to carry out the functionality of the control circuit because one having ordinary skill in the art would want to reduce power consumption.

Allowable Subject Matter

Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

None of the references of record alone or in combination disclose or suggest a recording and reproducing apparatus including light source, driving signal generating unit, high frequency superimposing unit, control unit, with level value and change as recited in claim 8, and **further where the level of high frequency signal is > 5mWpp during reproduction for DVD and < 4mWpp during recording for DVD±R/RW.**

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN BUTCHER whose telephone number is (571)270-5575. The examiner can normally be reached on Monday – Friday from 6:30 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young, can be reached at (571) 272 - 7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/BMB/

March 12, 2009

/Wayne Young/

Supervisory Patent Examiner, Art Unit 2627